

# Mastering the Art of the Possible

## The Air Force Special Operations Command

By DONALD C. WURSTER



*In November 2008, a flight of four CV-22 Ospreys, along with corresponding maintenance/logistics support, deployed to Bamako, Mali, in Africa to participate in Flintlock—the premier exercise to support future training and engagement in the Trans-Saharan region. Not only was this exercise significant in the fact that it was the first time U.S. Air Force Special Operations Command (AFSOC) CV-22 aircraft had deployed across the Atlantic Ocean to support special operations forces (SOF), but its importance lay in the achievement of combatant commander objectives: assisting partner nations in establishing and developing military interoperability and strengthening regional relationships in support of future combined humanitarian, peacekeeping, and disaster*

*relief operations. While in Mali, Malian and U.S. military personnel conducted Medical Civic Action Programs and Veterinary Civic Action Programs aimed at providing select medical and veterinary services to rural communities in Mali.<sup>1</sup>*

This story provides only one example of how AFSOC continues expanding our capabilities to provide the combatant commander with the full spectrum of specialized airpower. Providing airlift for access to rural populations represents a paradigm shift in thinking about how SOF airpower is applied to meet the commander's objectives. The context of irregular warfare is expanding perceptions of the term *the art of the possible*.

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U.S. Air Force

Malian and Senegalese forces train on 8<sup>th</sup> Special Operations Squadron CV-22 Osprey

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U.S. Air Force Special Operations Command, the air component of U.S. Special Operations Command (USSOCOM), is engaged in operations around the world. Many of these operations support engagement strategies aimed at building relationships that will prevent future conflict within a region. We employ a dedicated force that executes the mission areas of SOF mobility; shaping and stability operations; battlefield air operations; intelligence, surveillance, and reconnaissance (ISR); precision strike; agile combat support; command and control; and information operations. At the same time, we are pushing the innovation and technology envelope to develop responsive, relevant, and sustainable capabilities to achieve combatant commander goals within the context of a dynamic security environment.

As an adaptive learning organization, AFSOC's understanding of the nature of this dynamic environment has been the catalyst to modify our approach to warfighting. In short, we have evolved our organization and its capabilities to remain a step ahead in an environment where the only real constant is change.

### Nature of the Environment

Since the terror attacks of 9/11 and our subsequent experiences in Operations *Enduring Freedom* and *Iraqi Freedom*, our nation has witnessed forms of warfare that are the portent of future conflict. The concept that the central threat for the foreseeable future will be of an irregular nature has been recognized by Secretary of Defense Robert Gates in the 2008 National Military Strategy and has subsequently been embraced by AFSOC and the Services at large.<sup>2</sup>

Irregular warfare's (IW's) expected prominence has sparked a paradigm shift in how AFSOC regards the threat environment. Previous thinking about the employment of SOF tended to focus efforts within a context of nation-state conflict, counterproliferation, and counterterrorism. Tomorrow's security challenge will likely have less focus on nation-state peer competitor conflict, and more of an emphasis on irregular challenges and issues at the subnational level.

The nature of these subnational threats is an extension of the places and conditions that generate them. Irregular threats, which can become regional threats impinging on U.S. national interests, develop within an environment that facilitates their growth.<sup>3</sup> Fertile ground for the development of these

threats tends to exist where there are common elements that can form the basis for grievance against a government's legitimacy: poverty, perceived social injustice, corruption, lack of infrastructure, inability to project the rule of law throughout a nation's sovereign lands, an appealing alternate vision of governance, competing ideologies, and historic ethnic and tribal conflict. Along with these causes for grievance or greed that invite instability, other conditions typically exist that foster the growth of insurgent groups, such as sanctuary, outside funding sources, and access to ungoverned or undergoverned spaces.

This list describes conditions typically found in states that could be described as occupying the "bottom strata" of international economic development standards for gross national product, unemployment, high mortality rates, and low individual income. Because insurgent groups formed under such circumstances tend to tap into extremely complex social and cultural conditions, they are inherently complex adaptive systems. This interactive complexity inherent in human groups fundamentally differs from structurally complicated systems, such as an enemy Integrated Air and Missile Defense System, and requires a different approach.<sup>4</sup> What was once airpower's forte—defeating

problem: access to the hinterlands in order to extend the rule of law. In the IW context, the mobility provided by airlift is key to building legitimacy, yet hinterland access has proven a challenge in the past. However, with the addition of light and medium mobility aircraft, AFSOC has anticipated and answered the need for austere mobility. The leased and purchased airframes chosen to meet the specific needs of theater requirements and supported SOF forces are based on commercial, off-the-shelf models and, by virtue of their ubiquity in the civilian market, can offer a great range of nation access options.

Three new squadrons have been assigned this mission. Within 2 months of activation of the first of these tailored theater mobility squadrons in 2008, aircraft arrived in the Pacific for use by joint task force commanders in U.S. Pacific Command. By June 2009, additional medium-lift aircraft were flying near-daily missions in support of U.S. Southern Command and U.S. Africa Command requirements, providing airlift for up to 25 passengers or 9,000 pounds of cargo. With their short takeoff and landing capabilities suitable for small, remote airfields, these aircraft provide the combatant commander a SOF presence in areas previously inaccessible.

*the nature of subnational threats is an extension of the places and conditions that generate them*

structurally complicated systems such as enemy air defense systems—remains a critical capability even though it is now a problem that we are seemingly less likely to face in the near future. Instead, a new requirement has emerged: addressing and adapting to challenges of the human condition. Today, along with our kinetic ability to deliver "hard" military power, AFSOC has internalized the concepts of soft power by honing skills for both coopting and coercing. This is our new security challenge: how can we as Airmen help to prevent or deter future conflict, and what capabilities can we develop and use to operate in the austere challenging environments our mission requires with our available total force partners?

### SOF Mobility

The first part of the answer has to deal with environments where instability and conflict are most likely to share a common

This new capability in the combatant commander's toolkit extends reach and influence beyond the airfield limitations of larger, more traditional airlift.

In addition to expanding the austere mobility capability, AFSOC is placing high emphasis on recapitalization of the MC-130 fleet. All MC-130 variants continue as the workhorses for SOF movement of troops and resupply. This recapitalization effort will modernize both our Active-duty and air Reserve airlift fleets, improve sustainability, and expand AFSOC aerial refueling capabilities.

Future SOF mobility concepts to address high-end threats will continue to expand global accessibility for the warfighter. The next-generation mobility platform needs to provide the capability to execute long-range clandestine infiltration, exfiltration, and resupply missions to conduct the full range of special operations.

**Shaping and Stability Operations**

A dangerous combination that can threaten regional stability is a partner nation that has violent extremists in its midst (or conditions exist for them to thrive), has the will to suppress or defeat them, yet lacks the capacity to do so. Culturally astute, language-trained combat aviation advisors from the 6<sup>th</sup> Special Operations Squadron (SOS) execute the aviation foreign internal defense (AvFID) mission, providing unique capabilities to develop and maintain relationships, shape the environment, promote regional stability, and build partner nation capacity. Habitual training relationships fostered by the 6<sup>th</sup> SOS allow access, presence, persistence, and influence in regions that might otherwise fall prey to insurgent groups. A unique quality that the AvFID unit possesses is the ability to operate with a reduced signature, thus mitigating concerns by some partner nations about the perceptions within their populace when ground troops from an outside nation are present. AFSOC's "signature management" is an enabling capability in retaining America's access to partner nations—allowing influence

and aid, which help reduce the likelihood of instability.

Beyond partner nation engagement, AvFID personnel help build the compatibility necessary for coalition air operations at the intrastate level. To execute the mission of building partnership capacity, 6<sup>th</sup> SOS personnel, who represent over 30 different

*the next-generation mobility platform needs to provide the capability to execute long-range clandestine infiltration, exfiltration, and resupply missions*

career fields, train on a variety of domestic and international airframes while providing training expertise that ranges from aircraft maintenance to security, pilot training, survival, and life support. The AvFID mission is in high demand. The increased requirement from combatant commanders has sparked a period of unprecedented growth, doubling

the squadron size in just the past 3 years, with the potential to double again in the near future.

**Battlefield Air Operations**

One of the greatest challenges facing an air component engaged in an irregular war is one of integration with ground forces. Our Battlefield Airmen of the 720<sup>th</sup> Special Tactics Group provide the critical link between SOF ground forces and the decisive effects airpower can provide. The Battlefield Airmen career fields in AFSOC are combat controllers, pararescuemen, special operations weathermen, and the latest addition: the terminal attack control party. AFSOC's newest unit of Battlefield Airmen, the 17<sup>th</sup> Air Support Operations Squadron, provides dedicated Joint Terminal Attack Controller support to the U.S. Army Rangers and Special Forces units. Our Battlefield Airmen, Active duty and assigned Air National Guardsmen, are heavily deployed to meet the insatiable need for their unique skills—whether controlling aircraft, conducting personnel recovery, or forecasting environmental impacts to the mission.



Air Force Special Operations Command vice commander speaks with Peruvian armed forces chief of staff about weapons systems aboard AC-130U "Spooky" gunship

U.S. Air Force (Jason Epley)

All Battlefield Airmen are trained to seamlessly integrate with any U.S. or coalition SOF team, and to this end, they are taught “joint” from day one. Not everyone is suited for such an arduous lifestyle, and the Air Force Special Operations Training Center, composed of both Active-duty and Reserve Components, has placed a needed emphasis on recruiting the right people for grooming into Battlefield Airmen and Air Commandos. At the completion of the individual career field training, instruction culminates in the operational readiness phase of Special Tactics Training Squadron. Airmen learn the tactics, techniques, and procedures of operating on the ground inside enemy territory, while honing the skills that enable airpower’s success and ultimate achievement of the joint force commander’s objectives.

## ISR

The irregular warfare conditions SOF will face in the future require a different mindset and the hardware to match the needs of the environment. Conventional ISR activities typically provided the commander with raw data about enemy forces—size, number, location. In an irregular context, ISR must be used to fill in an additional dimension: context and meaning.<sup>5</sup> Often, killing and destroying are not the right ways to do business in irregular warfare (although those, too, are sometimes required). AFSOC has moved ahead full force with the creation of new squadrons equipped with the latest unmanned ISR technology to help gain understanding of the enemy, while maintaining the ability to find, fix, and finish a target should the mission warrant it.

Not only will AFSOC continue to provide USSOCOM with the MQ-1 Predators, but also, as of July 31, 2009, with the standup of the 33<sup>d</sup> SOS at Cannon Air Force Base, New Mexico, the advanced MQ-9 Reaper joined the inventory. With its improved performance and firepower, the Reaper will provide unparalleled ISR and close air support to the warfighter and combatant commanders. These platforms, along with the tireless dedication of the Air Commandos of the 11<sup>th</sup> Intelligence Squadron, are able to develop “pattern of life” intelligence on persons of interest—with the processing, exploitation, and dissemination necessary to turn data into information. Actionable intelligence is the sine qua non of today’s IW fight.

## Precision Engagement

Keeping collateral damage to a bare minimum is a strategy that must be unfailingly pursued in most irregular contexts. An errant munition’s impact can go far beyond collateral damage or civilian casualties; the strategic communications impact can be devastating as well. Precision munitions then become essential for a successful campaign. AFSOC assets provide combatant commanders with the option of precision fires with long loiter times—a combination often needed when dealing with subjects who attempt to hide among the civilian populace. The AC-130 gunship remains the weapon of choice for SOF troops in close contact with

precision fires to SOF in the field as well as close air support for troops in contact. AFSOC is currently pursuing outfitting its MC-130Ws with the PSP as an interim measure to rapidly increase its precision strike capacity until new precision strike aircraft are fielded.

## Agile Combat Support

By their very nature, IW campaigns require that the joint force establish long-term presence in multiple countries to build the necessary partner nation capability and capacity, which extends U.S. operational reach, is a force multiplier, and increases options for defeating mutual adversaries.<sup>6</sup> With this in mind, our forces need a robust,

*in an irregular context, intelligence, surveillance, and reconnaissance must be used to fill in an additional dimension: context and meaning*

**23<sup>d</sup> Special Tactics Squadron combat controller in Afghanistan**



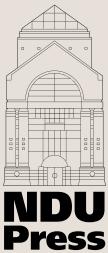
U.S. Air Force

the enemy. When going into an engagement, every special operator wants a gunship overhead. Their proven lethality and accuracy have made them the most feared aircraft in the fight. To improve this critical capability, AFSOC is pursuing several initiatives to recapitalize its aging AC-130 fleet.

The core of the recapitalization initiative’s offensive capability is the Precision Strike Package (PSP), consisting of a modular set of sensors, fire control systems, and weapons that can be installed on a number of different aircraft types. This system is designed to provide armed overwatch and

agile combat support (ACS) capability to sustain the myriad new and legacy AFSOC weapons systems deployed worldwide. Whether employing direct combat support activities such as maintenance and logistics or other functional areas such as security forces, communications, health services, or operations training, ACS plays a significant role in the successful accomplishment of AFSOC missions and is vital to the overall development and defense posture of a partner nation.

Sometimes nonkinetic engagement goes further in securing the peace. AFSOC deployable medical and surgical teams go to



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**Cyberspace and the "First Battle" in 21<sup>st</sup>-century War**

By Robert A. Miller and Daniel T. Kuehl

**Abstract**  
The United States and other major powers recognize the importance of cyberspace, creating what have often been called "cyberwarriors" within their forces. The issue of the U.S. role in cyberspace has been raised by many scholars and analysts, but there is little consensus on how to proceed. This article argues that the United States must take a leadership role in the development of international norms and standards for cyberspace and that it must do so in a way that respects the principles of international law and that protects the privacy and security of individuals.

The first battle in the 21<sup>st</sup> century, however, was well underway before the United States decided to create its Cyber Command and influence a wider range of forces from around the world. This article traces the history of the first battle in cyberspace, from its origins in the Soviet Union to its current state. It also examines the challenges and opportunities presented by the first battle in cyberspace, and it concludes with recommendations for how the United States can best respond to the threat posed by growing cyber warfare.

**Keywords:** cyberspace, first battle, international law, national security, network warfare, policy, security

## Defense Horizons 68

### *Cyberspace and the "First Battle" in 21<sup>st</sup>-century War*

According to authors Robert A. Miller and Daniel T. Kuehl, the "first battle" in the 21<sup>st</sup> century may well be in cyberspace. They remind us that we have already seen hints of cyberwar in Estonia and Georgia. Coordinated cyber attacks designed to shape the larger battlespace may become the key feature of the next major war. Given the increasing dependence of the U.S. military and society on critical infrastructures, this cyber-based first battle is one that we cannot afford to lose.

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villages to help treat people who may not have seen a doctor for years. This type of commitment can help change local perceptions of the United States and its military.

While medical teams are significant contributors, in the end ACS will often involve aircraft with unique capabilities. None of the manned or unmanned machines or the crews that operate them can benefit a combatant commander without the support personnel and maintainers who keep them operational. AFSOC is home to world-class maintenance professionals, many of whom require specialized skills that take longer to hone than the time it takes to train the aircrew flying the aircraft. Their level of dedication and spirit of teamwork are exactly what America has come to expect from its special operations "quiet professionals."

### Command and Control

Expanding the global footprint of the force to meet rising theater demands necessitated a revised AFSOC approach to command and control (C<sup>2</sup>), ensuring alignment with emerging national military strategy priorities of IW and building partnership capability. Sourcing and sustaining a professionalized C<sup>2</sup> force for each Theater Special Operations Commander (TSOC) must strike the right operational balance of keeping pace with programmed platform, aircrew, and operating locations, while still remaining light, lean, agile, and relevant to the SOF involved. As such, the AFSOC Air and Space Operations Center (AOC) is partnering with AFSOC Wings/Groups and all the ground control centers to place small professionalized C<sup>2</sup> nodes forward, each tailored to specific TSOC mission needs. We refer to this construct as Global SOF Air C<sup>2</sup>, not only because it is enabled by common systems and tools, supported by 24/7 reachback, but also because it is scalable to handle contingencies within, or across, theaters. To further sustain this capability during periods of surge, a ready reserve force is additionally being integrated into the AOC. The combined effect of these initiatives is SOF air, communications, and C<sup>2</sup> for the 21<sup>st</sup> century.

### Information Operations

In a globalized world where individuals with cell phone cameras and a computer connection can sway the opinion of a population, information operations (IO) become a battlefield dynamic under which all military opera-

tions are executed. In the IW context, any action, even down to the individual Airman, can have strategic level impact. In this sense, IW is largely a "battle of the narrative," each side working to have the more effective strategic communication effort to capture the support of the people. In AFSOC, IO dissemination is one of the missions of the Pennsylvania National Guard's 193<sup>d</sup> Special Operations Wing. The importance of this mission is reflected on their ramp: the 193<sup>d</sup> is the first AFSOC unit to be equipped with the new "J-model" C-130s, upgrading their previous EC-130E aircraft into the EC-130J, extending range, altitude, and capability to reach a broader audience. The 193<sup>d</sup> is in high demand and remains one of the most deployed units in AFSOC, and the most deployed air unit in the National Guard.

### Adaptability Is Key to Airpower

When Colonel John Boyd devised his Observe, Orient, Decide, Act Loop to describe how to get "inside" of an adversary's decision cycle, he was thinking about conventional combat against like opponents, not asymmetric and irregular threats that are complex adaptive systems. Today, "acting quicker" is simply not enough. We must not only be more flexible in our thinking about the future threat, but we must also adapt faster than the enemy does. As worldwide security threats evolve, the capabilities within AFSOC's missions have rapidly adapted as well—and will continue to do so for the foreseeable future. **JFQ**

### NOTES

<sup>1</sup> U.S. Africa Command Public Affairs, "Government of Mali Hosts Military Exercise in Bamako, Mali," available at <[www.africom.mil/getArticle.asp?art=2220&lang=0](http://www.africom.mil/getArticle.asp?art=2220&lang=0)>.

<sup>2</sup> *The National Military Strategy of the United States of America* (Washington, DC: The Joint Staff, June 2008), 7, 8.

<sup>3</sup> *The National Defense Strategy of the United States of America* (Washington, DC: Office of the Secretary of Defense, June 2008), 2, 3.

<sup>4</sup> See Paul K. Van Riper, "EBO: There Was No Baby in the Bathwater," *Joint Force Quarterly* 52 (1<sup>st</sup> Quarter 2009), 83.

<sup>5</sup> James S. Corum, "Getting Doctrine Right," *Joint Force Quarterly* 49 (2<sup>nd</sup> Quarter 2008), 95.

<sup>6</sup> Department of Defense (DOD), *Irregular Warfare Joint Operating Concept Version 1.0* (Washington, DC: DOD, September 11, 2007), 1, 11.